

MORAL FOUNDATIONS AND POLITICAL IDENTITY  
AMONG FINNISH MILITARY CADETTEES

Pro Gradu

Simon Granroth | Faculty of Social Science | Social Psychology

The University of Helsinki

in association with

The National Defence University

April 2020



HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

Faculty Faculty of Social Science		Department Swedish School of Social Science	
Author Simon Edvin Gunnar Granroth			
Title Moral Foundations and Political Identity among Finnish Military Cadettes			
Subject Social Psychology			
Level Master's Thesis	Month and year April 2020	Number of pages 63	
<p><b>Abstract</b></p> <p>The Moral Foundations Theory strives to explain human morality and political differences on the individual and the group level. According to the theory there are five core moral foundations that humans intuitively rely on in the process of moralising. There has been research into how the moral foundations profile with regards to political identities. Here liberals and conservatives tend to rely on different foundational values when moralising. However, there is no previous research on how the Moral Foundations Theory and political identity works in military samples. Researching this facet of values in the military has an inherent value for military education but also in exploring how the MFT replicates in military populations.</p> <p>This study uses data from a survey (N = 167) among military cadettes at the Finnish National Defence University to compare the results from the Moral Foundations Questionnaire with political identification measured on a two-dimensional self-placement instrument. A two-step cluster analysis on the MFT material identified four distinct clusters of moral profiles within the sample. Variance analysis on the clusters using the political self-placement measure confirmed that the liberal and the libertarian clusters hold significantly more liberal values than the two conservative clusters, the loyal-conservative and the authoritarian-conservative, on the social political measure. The sample data suggests that loyalty and authority are the most important values for this population while harm, sanctity and fairness score lower and display a greater degree of variation between the clusters.</p> <p>It appears that the MFT does not replicate fully in the FNDU sample. The clusters are loosely identifiable as previous research would suggest, but they display significant anomalies in the form of exceptionally high loyalty and authority, which is unique in any WEIRD population. The skewed gender representation (93.4 % men) of the sample, the translated MFQ and the NDU context are probable contributing factors to this phenomenon. However, the political self-placement measure replicated as expected on social values with regards to the MFT profiles even if the differences were small.</p>			
<p><b>Keywords</b></p> <p>Moral Foundations Theory, Political Identity, Finnish National Defence University, Military, Values, Cluster Analysis.</p>			



HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI

Fakultet Statsvetenskapliga fakulteten		Institution Svenska social- och kommunalhögskolan
Författare Simon Edvin Gunnar Granroth		
Titel Moralfundamenten och politisk identitet bland kadetter vid Finlands Försvarshögskolan		
Läroämne Social Psychology		
Arbetets art Pro gradu	Månad och år April 2020	Sidantal 63
<p>Abstract</p> <p>Moralfundamentsteorin (Moral Foundations Theory, MFT) strävar efter att förklara mänsklig moral och politiska skillnader på individ- och gruppnivå. Enligt teorin finns det fem grundläggande moraliska fundament som människor intuitivt förlitar sig på i moraliseringsprocessen. I forskningen har det undersökts hur de moraliska fundamenten profilerar med avseende på politiska identiteter. Här tenderar liberaler och konservativa att förlita sig på olika fundament när de moraliserar. Det finns dock ingen tidigare forskning om hur MFT och politisk identitet fungerar i militära sampel. Att undersöka denna aspekt av värderingar i militären har ett värde för militär utbildning men också i att utforska hur MFT replikerar i militära sampel.</p> <p>Denna studie använder data från en undersökning (N = 167) bland militära kadetter vid Finlands Försvarshögskola för att jämföra resultaten från Moral Foundations Questionnaire (MFQ) med politisk identitet uppmätt på ett tvådimensionellt självplaceringsinstrument. En tvåstegs klusteranalys på MFT-materialet identifierade fyra distinkta kluster av moraliska profiler i samplet. Variansanalys på klustren på basis av det politiska självplaceringsinstrumentet bekräftade att det liberala och det nyliberala klustret har betydligt mer liberala värden än de två konservativa klustren, det lojal-konservativa och det auktoritär-konservativa, på den socialpolitiska värde skalan. Resultaten pekar på att lojalitet och auktoritet är de viktigaste fundamenten i detta sampel medan omtanke, helighet och rättvisa får lägre poäng och visar en större grad av variation mellan klustren.</p> <p>Det verkar som om MFT inte replikerar väl i det här militära samplet. Klustren liknar delvis de kluster som tidigare forskning identifierat, men de uppvisar avvikelser i form av exceptionellt hög lojalitet och auktoritet. Den ojämna könsrepresentationen (93,4 % män) i samplet, den översatta MFQ-enkäten och det militära sammanhanget är troliga bidragande faktorer till detta fenomen. De politiska självidentifieringsresultaten på sociala värderingar replikerades som förväntat i förhållande till MFT-profilerna även om skillnaderna mellan klustren var små.</p>		
Nyckelord  Moralfundamentsteorin, politisk identitet, Försvarshögskolan, militär, värderingar, klusteranalys.		

## ACKNOWLEDGEMENTS

First, I would like to thank my mother Monika and father Sixten for encouraging me throughout all the philosophical discussions and arguments on ethics and morality which, I think, fundamentally sparked my interest to explore the human condition. I am grateful for the support I have received from You, whether in the form of perusing my texts or complementing my train of thought.

I also wish to thank my thesis instructor PhD Rasmus Mannerström and unofficial mentor from the FNDU, Professor Antti-Tuomas Pulkka, for the guidance. I sincerely appreciate the time and effort given by both of You and wish You the best in all future endeavours.

Finally, I would like to thank my brother Andreas as well as my study partner Sonya for the countless hours spent in the library, the inspiring discussions, and the warm companionship.

Peace.

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## ABBREVIATIONS

AIC	Akaike Information Criterion
ANOVA	Analysis of Variance
BF	The Big Five
BIC	Bayesian Information Criterion
FDF	Finnish Defence Forces
FNDU	Finnish National Defence University
<i>M</i>	Mean
MFQ	Moral Foundations Questionnaire
MFT	Moral Foundations Theory
N	Number of participants
<i>r</i>	Pearson's <i>r</i> (measure of effect size)
<i>SD</i>	Standard Deviation
SVS	Schwartz's Value Scale
WEIRD	Western, Educated, Industrialised, Rich, and Democratic
$\alpha$	Cronbach's Alpha (measure of internal consistency)



### 1. INTRODUCTION

The Moral Foundations Theory (MFT) is a relatively new theory of human morality. It is based on the underlying idea that humans share no universal morality, but rather an inherent readiness to feel moral intuitions. These intuitions then form the basis of our moral judgements. The MFT works on the moral intuitionist model, in which a stimulus provokes an emotion, or intuition, which is then rationalised or scrutinised by the conscious mind (Graham et al., 2013; Haidt, 2012). The MFT has been used to explore and explain the moral decision making of individuals and groups (Graham et al., 2011) but has simultaneously become a widespread tool for analysing the underlying mechanisms of political identification and orientation as well (Smith et al., 2016).

Despite of its popularity, there is no research to be found on how the MFT works in military populations when comparing the MFT with political orientation. In fact, the only study that analyses the MFT in a military context is D. J. Perez (2019) newly published doctoral dissertation, where the effect of wartime experiences on morality is explored. Understanding the warrior mind and moral decisioning naturally has an intrinsic value when developing military education, practices on operational deployment abroad, and for national crisis readiness in general, but also on a wider societal level in terms of deepening the understanding of human morality and its plural facets.

The goals of this study are twofold. First, I aim to identify and analyse typical MFT profiles in a military population. This will be accomplished by using the Moral Foundations Questionnaire (MFQ) material from a survey at the Finnish National Defence University (FNDU) for cluster analysis. The second goal is to explore how these clusters identify and perhaps differ on the political spectrum. Thus, this study pioneers the exploration of MFT into the military context by following the footsteps of Haidt et al. (2009) study on MFT clustering and political orientation.

To summarize, this study examines the functionality of the MFT's application for political orientation analysis and moral profiling in a Finnish military population. This study is the first to explore how this MFT application works in a military sample.

## 2. MORAL FOUNDATIONS THEORY

The purpose of this chapter is to present and discuss the origins of the MFT. This will give the reader the tools needed to understand the theoretical reference frame of the MFT and its applications and shortcomings. First, the theoretical background for the MFT is described. This includes the evolutionary and social underpinnings of human morality, the moral intuitionist model, and finally the actual MFT. When the theoretical reference frame has been established the MFT's critics are discussed.

### 2.1. What is Morality?

Some sense of morality has been at the centre of human culture as long as social interaction has existed. In a way, our cultures might be considered virtue based. Certain sets of characteristics and behaviours that are seen as ideal and good, and morally superior. However, these virtues are often context- and role specific. They also vary over time and among cultures (MacIntyre, 1981; Vitz, 1990).

The theory of sociocultural evolution is one of the most prominent contemporary explanations for human morality (Tivell, 2012). However, some argue that morality might be a predominantly biological quality and the product of evolutionary forces and group selection. In this sociobiological view, morality is evolved the way it is simply because the set of behaviours that constitute morality contribute to survival and reproduction. Empathy, guilt and other emotions are thus seen as the evolutionary response to enhance pro-social behaviour in humans (Schermer, 2004). Reciprocal behaviour, empathy and even acts of altruism and a sense of fairness are all well documented among mammals. And this fact strengthens the evolutionary hypothesis since pro-social behaviour is clearly not a uniquely human attribute but shared across

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species among mammals that live in social groups (Bekoff & Pierce, 2009; deWaal, 1997).

However, the age-old argument of nature vs nurture is prominent within the field of moral psychology despite of the sociobiological paradigm. With the cultural constructionist perspective on one side and the cognitive developmental view on the other. This argument may also be divided into the moral empiricist perspective and the nativist perspective. The empiricist/constructionists argue that all moral knowledge and beliefs are learned in childhood and refined through adolescence. Hence morality is not inherent or built into the human mind, but rather facilitated by the cognitive mechanisms that enable morality to be learned and taught. On the other side, the nativist/developmentalists argue that moral behaviour and the moral process is inherent through evolution. In this view all humans raised in similar environments would come to the same moral conclusions even in the absence of adults (Haidt & Craig, 2004; Haidt, 1992, Haidt 2012).

From the developmental perspective, Kohlberg (1971) claimed to have demonstrated that morality is universal and revolves around issues of justice. He hypothesised that, given the right conditions, moral development would go through the same stages in all humans. Furthermore, he considered cultural differences to stem mainly from socioeconomical and educational factors as well as differences in democratic and non-democratic societal structures. Continuing Kohlberg's influential work, Turiel (1983) found that Kohlberg's classifications of moral development in humans was biased in the favour of individuals who have the ability to explain abstract concepts such as utilitarianism and the societal need for social regulation. Turiel proved that, even as Kohlberg's classifications favoured verbally more adept individuals, the results were quite different when the test questions were reduced into simple yes or no questions. In this way, Turiel found that even young children can and do make a difference between contextual social norms and more universal moral rules.

Based on this evidence it was concluded that humans consider some acts intrinsically bad and harmful while others are not, even though they might be undesirable in certain contexts. In other words, there seemed to be a realm of universal morality based on

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the concepts of fairness, justice, and reciprocity that even children could identify. This cognitive developmental perspective thus suggests that the principles of rationality, the senses of justice and fairness are what form the basis of the human moral code (Nucci & Turiel, 2008; Nucci, 1981).

If human morality was inherent and universal, then we should be able to observe great similarities across cultures, which we do. However, we also observe great discrepancies even within culturally homogenous societies and even greater ones between cultures. For example, some cultures differentiate between acts that are considered universally immoral and acts that may seem undesirable but still lie outside of the social regulative domain and thus could and should be judged according to personal preference. But in contrast, many cultures extend the domain of social regulation further as if it was a part of a universal morality. This discrepancy is clearly observed between societies that lie within the WEIRD (Western, Educated, Industrialised, Rich and Democratic) sphere and those that lie outside it (Haidt, 1992; Haidt, 2012). This forms a basis of compelling evidence for a culturally constructed morality that often extends beyond the enlightenment concepts of justice and rationality. For example, even though the cognitive developmental theory predicts that disgusting or disrespectful but nonetheless harmless acts should be judged as matters of personal preference and context bound social norms they are sometimes judged and reacted to as if they were universal moral violations. Why? The cognitive developmental perspective did not account for human affect and emotion, but consistently relied upon the basis of rationality, universality and the first principle basis to explore morality (Shweder, Mahapatra & Miller, 1987; Miller, Bersoff & Hardwood, 1990, Haidt, 1992).

So even though acts with harmful or unjust consequences seem to be important in moral judgement across cultures, some victimless acts still produce a similar affective response as if within the moral domain. Disgust and disrespect as well as disobedience and deference to authority are examples of acts that facilitate an affective moral response and are often rationalised by individuals as harmful even if they are victimless, private or have no concrete harmful consequences (Haidt, 1992). And many cultures have rules regarding food and sexual taboos. Several anthropological

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studies have concluded that breaking these rules give rise to moral emotions and reactions such as disgust (Douglas, 1966; Meigs, 1984). Why are these acts considered intrinsically immoral regardless of their consequences?

Haidt (1992) concluded that the western research tradition had limited itself to exploring morality as issues of harm, justice and rationality, even though many cultures clearly encompass a broader moral sense of the moral domain and yet share so many similarities. This called for an expanded model for human morality that aims to integrate the cognitive developmental perspective with the cultural constructionist. According to Haidt and Craig (2004) the missing link lies in the exploring of human morality in the realm of intuitions, affect and emotions.

### 2.2. The Moral Foundations Theory

Enter the MFT. The MFT originates from social psychologists J. Haidt, J. Graham and C. Joseph research. The theory aims to bridge the gap between the moral empiricist and moral nativist perspectives by exploring how our inherent qualities combine with learned reasoning and together form our processes of moral reasoning. The MFT has quickly become a prominent theory of human morality and a widely adopted tool for examining and explaining how morality and political orientation intertwine (Haidt & Joseph, 2008; Smith et al., 2016).

The theory is based on the moral intuitionist model. This model offers an alternate view that bridges the nativist and empiricist standpoints. Haidt and Joseph (2004) propose that humans have an inherent set of qualities described as “an innate preparedness to feel flashes of approval or disapproval toward certain patterns of events involving other human beings”. These intuitive flashes then form the basis of our process of moralising and underlie the ethics developed by all cultures. Thus, the human mind does not come as a blank slate, but we are born with tools that later develop into our sense of morality through our experiences. As such, the cultural learning process is preceded by the instinctual drives that allow environmental factors

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and learning to provide culture-specific values and norms to develop (Haidt & Joseph, 2004; Graham et al., 2013).

According to the moral intuitionist model (Fig. 1) the human mind can be divided into two separate processing systems (comparable with “Thinking, Fast and Slow” by D. Kahneman 2011). The first system is an intuitive, subconscious, quick, and automatic system of thought that operates almost without effort. It relies on our psychological constructs and the individuals intuitive understanding of the world. Conscious reasoning, the secondary system of thought, is used to provide rational justification or scrutinization for what the first system presents. According to this model a stimulus first elicits a “gut feeling”, a moral intuition about how to react and how to feel. This intuition then leads to an intuitive judgement of the situation that elicited the intuition by the first system of thought. This intuitive judgement is then passed on to the secondary system, which often confirms the intuition by post hoc reasoning: “This feels wrong, so it must be wrong”. As such, human morality is reactionary and not rational, but often rationalising (Haidt & Joseph, 2004; Haidt, 2012).

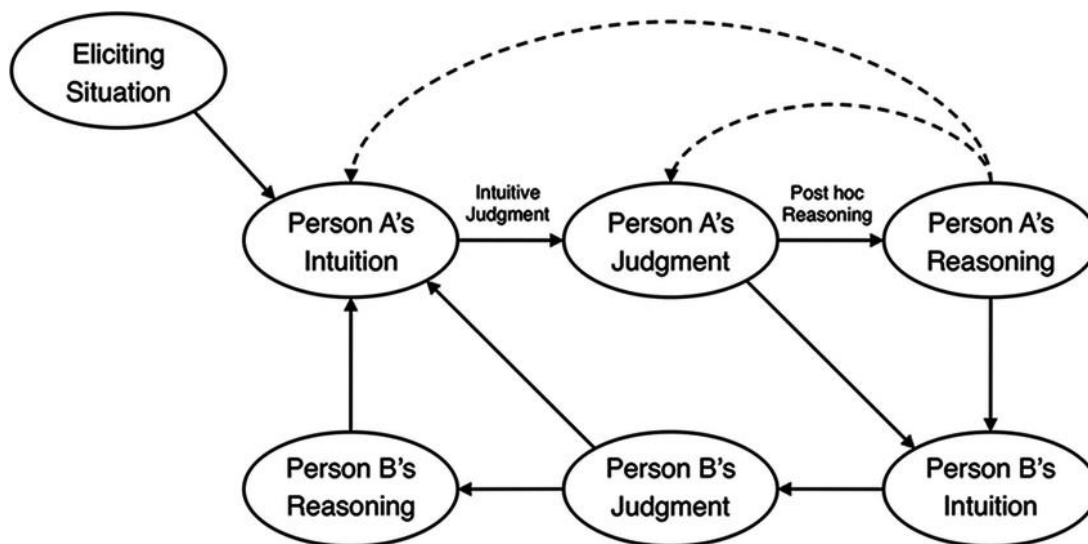


Figure 1. Moral intuitionist model from Haidt & Joseph, 2004.

The MFT recognises there to be at least five inherent sources for moral intuitions, called moral foundations within the theory. These foundations are based on the

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expressed moral concerns that individuals present when confronted with a moral dilemma. The five foundations are Care/Harm, Fairness/Cheating, Loyalty/Betrayal, Authority/Subversion, and Sanctity/Degradation. These five moral foundations are subsequently categorised into two clusters. The individualising cluster, containing Harm and Fairness, and the group binding cluster, including Loyalty, Authority and Sanctity (Graham, Haidt & Nosek, 2009; Graham et al., 2009; Haidt & Joseph, 2008; Graham, Nosek & Haidt, 2011; Graham et al. 2013).

### *2.2.1. The individualising cluster*

The foundations in the individualising cluster are referred to as individualising foundations since they concern the rights of individuals and aim to limit the consequences of self-interest. These foundations are often used in enlightenment ethics, the rational, utilitarian grounds touched upon previously (Graham et al., 2011, Haidt, 2012).

#### *Care/Harm*

This moral dimension is strongly related to our evolutionary process as mammals and to our attachment systems, and our ability to empathize. This dimension supports virtues such as kindness, empathy, and gentleness. Liberal and politically left leaning people hold this dimension in high regard in their moral reasoning and intuition – how can it be wrong if no one was harmed? (Graham et al., 2011; Haidt, 2012).

#### *Fairness/Cheating*

The moral intuitions and rationalizations regarding fairness are related to the evolutionary processes preceding reciprocal altruism, and supports ideas of justice, universal rights, and autonomy. Originally, this moral dimension included the concept of equality as well, but was revisited in 2011, based on new data, which endorsed the emphasis on proportionality instead of total equality (Graham et al., 2011; Haidt, 2012).

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### 2.2.2. *The group binding cluster*

The group binding foundations serve to facilitate group formation and cohesion within groups. Here authority and loyalty are especially important in facilitating solidarity and respect. Sanctity is theorized to have evolved to curb human desires and often manifests itself as traditional values or religious beliefs (Haidt & Joseph, 2004; 2008).

#### *Loyalty/Betrayal*

The loyalty dimension was shaped through our history of human tribalism. Virtues that relate to this dimension are patriotism and self-sacrifice for the group. The loyalty dimension is present at any time when people put the best of their group in front of their own self-interest (Graham et al., 2011; Haidt, 2012).

#### *Authority/Subversion*

This dimension relates to our species long history of hierarchical social interactions, and lies behind virtues such as leadership, devoir to legitimate authority, and respect for traditions. More conservative people tend to feel that this moral foundation is an important one in their moral reasoning and the precursory moral intuition (Graham et al., 2011; Haidt, 2012).

#### *Sanctity/Degradation*

The dimension of sanctity is founded on empiricism behind the psychology of disgust that underlies many religious concepts of a pure, more noble, way of living. For example, treating your body like a temple that must not be contaminated by immoral activities, such as substances or taboos regarding sex and sexuality (Graham et al., 2011; Haidt, 2012).

Sinn and Hayes (2016) have concluded that the moral foundations are indeed social-evolutionary answers to the problems that were common in the environment of humanity's cradle – the hunter gatherer society. And more specifically, to the conflicts within tribes and between tribes. They postulate that the three dimensions of the binding cluster, loyalty, authority and sanctity, favour solutions for intertribal



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conflicts, while the dimensions of the individualizing cluster, care and fairness, balance out the binding virtues with greater regard for the individuals within the group.

Conclusively, the MFT consists of five moral foundations, each corresponding with an evolutionary or adaptive challenge that humans have had to face. The theory aims to merge evolution, psychology, and social development. Within the MFT, morality or at least our process of moralising, is considered innate, described as a preparedness to feel moral emotion, and rationalise or scrutinise it (Haidt & Joseph, 2008).

### 2.3. The moral foundations questionnaire

The Moral Foundations Questionnaire (MFQ) is the instrument for measuring the foundations within the MFT. The MFQ is a self-report measure assessing which of the moral foundation an individual considers to be important when faced with a moral statement (Graham et al., 2011; Zhang, Hook & Johnson, 2016).

The standard version of the questionnaire is the MFQ30. It contains thirty-two questions with six questions or statements for each moral foundation and two control items made to catch and disqualify any respondent not answering sincerely. The questionnaire is also divided into two parts. In the first sixteen questions the participant is asked to rate the level of relevancy of a statement or consideration when determining whether something is morally right or wrong. The following sixteen items are statements in which the participant is asked to rate their level of agreement. The sum total for each foundation is then calculated and can be analysed in context (Graham et al., 2011).

The original validation study for the MFQ examined the relevance, relations, and consistency of the instrument through exploratory and confirmatory factor analyses. The external validity of this instrument was then explored by comparing each foundations relation to other verified scales. For example, the Care foundation was compared with the Empathy subscales from the Interpersonal Reactivity Index, the

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Psychopathy Scale as well as several items from the Good-Self Assessment and the Schwartz Value Scale (SVS) items for Benevolence; Fairness and Ingroup Loyalty were also compared with the Good-Self Scale and the SVS; the Authority foundation was validated in comparison the Right-Wing Authoritarianism, the SVS as well as the Progressive and Traditional Justice scale; Sanctity was compared to the SVS, self-reported religious attendance, and the Disgust Scale (Graham et al., 2011). In this study Graham et al. (2011) found the MFQ to be consistent, reliable, and valid. However, it should be noted that later studies have had a hard time replicating these results, especially in cross-cultural samples and with translated questionnaires (Davis et al., 2016; Nilsson & Erlandsson, 2014; Bobbio, Nencini, & Sarrica, 2011; Dogruel, Joeckel, & Bowman, 2013; Kim, Kang, & Yun, 2012; Kivikangas, Lönnqvist, & Ravaja, 2017; Zhang & Li, 2015).

### 2.4. Prominent critiques

Even though the MFT has had a significant impact on moral psychology, the theory is not without its problems and has encountered both theoretical, empirical and some ideological critique.

Miles and Vaisey (2015) criticised the MFT for failing to incorporate a broader theoretical base. They argued that utilising the moral constructs of several theories should give a better and more coherent explanation of the political variation observed when comparing MFT to political orientation. Also, the MFT cannot explain whether the moral foundations explain political affiliation or vice versa.

Researchers have also questioned the endeavour of Haidt et al. to incorporate the conservative virtues of loyalty, authority, and purity into their model. The argument is that previous research within political psychology associate these virtues with authoritarian personality characteristics. And considering these as valid moral concerns in order to broaden the scientific concept of morality might not be wise since it might lead authoritarian tendencies to be perceived as more acceptable, even though

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these virtues are associated with intergroup hostility and discrimination. Now, this argument does not really question the MFT model itself, but rather its politics (Kugler, Jost & Noorbaloochi, 2014).

The main criticism of the MFT is the lack of empirical evidence for its evolutionary and neurological claims, as these can be seen more as general speculation than theoretical premise. Thus, the assumptions on intuitional innateness become problematic. Furthermore, the MFTs taxonomy seems deliberately created on a post hoc basis rather than based on empirical analysis as the theory has excluded good candidates for moral foundations. As such Suhler and Churchlands (2011) critique boils down to three main points. First, the assumptions of moral innateness and modularity are not proven and thus should not be utilised in support of the theory. Second, there might be additional foundational candidates which have not been explored thoroughly and this question the legitimacy of the model. Third, the MFT fails to bridge theory with neural- and genetical science even though it claims to do so.

The MFQ-instruments validity and reliability has been questioned as well. First, the factor structure and measures of internal consistency in Graham et al. (2011) were less than optimal and several studies have had the same problem with lacking internal consistency of the MFQ (Bobbio, Nencini, & Sarrica, 2011; Dogruel, Joeckel, & Bowman, 2013; Kim, Kang, & Yun, 2012; Kivikangas, Lönnqvist, & Ravaja, 2017; Zhang & Li, 2015). A few more recent factor analyses have also shown the five-factor model to have an even worse fit than the original validation study indicated even though this model certainly offers the best fit estimate for the time being (Davis et al., 2016; Nilsson & Erlandsson, 2014).

Several studies have had problems with replicating the MFT hypotheses cross-culturally. For example, Davis et al. (2016) could not replicate the original MFT findings in their Afro-American sample. In this study the binding foundations did not correlate with conservatism as strongly in Black samples as it did among Whites in the US. Along the same lines, Zhang and Li (2015) reported problems when examining

the MFT in a Chinese sample, where the questionnaire items about God apparently did not correspond well with their Buddhist cultural roots.

Conclusively, the MFT remains a popular framework exploring the connection between morality and politics despite of its theoretical and methodological shortcomings. And will most likely stay as such until a stronger theory takes its place. The researchers of MFT (Graham et al., 2013) have responded to several of these criticisms and have acknowledged that, while the five-factor structure of the MFT is quite strongly supported by empirical evidence it is not final and is to be considered a work in progress. For example, Liberty (Ivyer et al, 2012; Haidt, 2012) is a candidate foundation that might be implemented into the theory and other suggestions as well as critical discussion are welcome.

### 3. THE POLITICAL SPECTRUM

The aim of this chapter is to give an overview of how political ideologies are represented and measured. I will also review how morality is used to explain political differences and finally discuss how the MFT has been implemented to explore political identity.

#### 3.1. Political ideology and political identity

People tend to categorise themselves into political labels such as *liberal*, *conservative*, or *socialist*. Many studies have examined this phenomenon of political identification by examining how people self-identify politically and how these identifications intertwine with personality traits and values (Jost et al., 2003; Sibley & Duckitt, 2008; Schwartz, 2010). These political identities are often visualised as placed on a spectrum in accordance to the values that they reflect. In the US, the political spectrum is usually portrayed as a single bipolar dimension with liberal-left on one side and conservative-right on the other. This spectrum roughly translates to the value antagonism of

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liberalism/socialism vs capitalism/conservatism (Eysenck, 1954). While this may work in the US and be reflective of the political system there, this conceptualisation lacks the nuance of the political systems in the rest of the world. Some argue that a multidimensional system with separate measures for social and economic issues better describe the spectrum of political identity and values (Kerlinger, 1984; Feldman, 2003). From the MFT perspective Haidt et al. (2009) research also suggests that a one-dimensional conceptualisation poorly captures the whole spectrum of political identity. Furthermore, this research suggests that the moral dimension of politics clearly goes beyond the simple distinction of liberal-left and conservative-right.

Definitionally, ideological conservatism promotes traditional social institutions and regards tradition, hierarchy, and respect for authority as virtues. Conservatism prioritises social stability over liberties such as personal freedoms. Liberalism, in contrast, emphasises individual freedom and equal rights in society. This antagonism has also been described as the degree of which an individual resist or advocates social change. In turn, the right is associated with acceptance of inequality within an economic context, which implies that social hierarchies are inevitable and even natural in any society. Within this context, inequality is viewed as a result of natural social differences and even as a precondition for a free market economy and as such perceived as fair in proportion to what an individual can contribute with. The ideological left is defined as supporting economic egalitarianism and is interchangeable with socialism in many cases. For the left, caring for those who are perceived as disadvantaged in society by means redistributing wealth and policies of privilege is seen as a virtue. This left-right antagonism can be summarised as the degree of which an individual accepts inequality (Bobbio, 1997; Feldman, 2013; Jost, Federico, & Napier, 2009; McLean, McMillian & Alistair, 2009; Schwartz, Capara & Vecchione, 2010; Schwartz et al. 2014).

Socialism, the left and liberalism as well as the right, and conservatism are sometimes used synonymously and even interchangeably (Feldman, 2013; Feldman & Johnston, 2013). Even though these concepts and identities are sometimes intertwined, studies have found a two-dimensional structure with separate measures for economic and social values to be quite reflective of the underlying values (Schwartz, 1990).

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For the clarity of this study liberalism and conservatism are considered as the social value spectrum concerning individual rights and freedoms, while the left and right will represent the economic value spectrum concerning ones acceptance of inequality and the need for redistribution of wealth, if not stated otherwise.

### 3.2. Political self-identification

Political identity, identification or ideological orientation is often measured by utilising a self-placement scale, where the respondent places herself on the spectrum as she sees fit. The measurement scales are often bipolar or two-dimensional and represent either the liberal-conservative spectrum, the left-right spectrum or both. Simple and straightforward as this operationalisation is, it still has its problems. Mainly that self-reported ideological or political orientation or identity might not always correspond well with views on actual political issues or practice or even with values, but rather with group identification (Jost, 2006; Jost, Federico & Napier., 2009; Feldman, 2013; Hibbing, Smith & Alford, 2014).

Ellis and Stimson (2012) refers to this disparity between political identification and operationalisation as symbolic vs operational ideology. Their research shows that many who identify as conservatives on paper are likely to endorse liberal policies in practice while simultaneously maintaining their conservative identity. Therefore, the validity of the self-placement measure is questionable at best, but the clarity and simplicity of this instrument has made it a very popular way of measuring political orientation. It does, however, predict voting behaviour very accurately (Jost, 2006; Jost et al., 2009).

As shortly mentioned earlier, research suggests that a two-dimensional representation of the political spectrum is superior to a unidimensional one when studying political identity. This multidimensional conceptualisation makes room for heterogeneity and nuance beyond the simple unidimensional measure. Libertarianism, for example, combines values from the economic right and social liberalism. This and other latent

classes may be more obscured in a unidimensional analysis. Thus, the two-dimensional instrument with one measure for social values and another for economical values is preferable (Feldman & Johnston, 2013).

### 3.3. Political ideology and the MFT

Individual variation in political ideology is often attributed to differences in class, demographics, culture, and experiences during adolescence etc. (Baldassarri & Bearman, 2007; Davis & Robinson, 1996; McFarland & Thomas, 2006; Weeden & Grusky, 2012; Wright & Boudet, 2012). These qualities are, of course, dynamically intertwined with human morality, even though there seems to be no consensus of which moral differences matter the most and to which degree (Graham et al., 2009; Hunter, 1991; Koleva et al., 2012; Lakoff, 2002; Schwartz et al., 2010). Political orientation, like morality, is clearly dependent on individual, inherent and cultural differences that affect our psychological underpinnings. This way, both political orientation and morality is considered as built upon our inherent psychological structures but also affected by outside influences (Feldman, 2013, Jost et al., 2003; Feldman & Johnston, 2014; Jost et al, 2009).

One of the most prominent implementations of the MFT is to utilise it to explain and predict political identification of groups and individuals. In these MFT studies liberals tend to value the foundations in the individualising cluster over the ones in the binding cluster while conservatives usually form a more even MFT profile with all five foundations being represented quite equally. Thus, it can be implied that liberals lean toward a more universalist morality while conservatives are more sensitive to the moral compass of the in-group (Graham, Haidt & Nosek, 2009; Graham et al., 2011; Koleva et al., 2012).

This dualism has been observed in several studies. However, most studies have employed a political self-placement instrument, and this begs the question whether real values corresponding with operational ideology have been measured, or rather

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just symbolic ideology corresponding with identification (Davies, Sibley & Liu, 2014; Hirsh, DeYoung, Xu & Peterson, 2010; Lewis & Bates, 2011).

Political liberals have been found to score higher in the individualising foundations, harm and fairness. Conservatives, while holding harm and fairness in relatively high regard, score slightly higher on loyalty and much higher on authority as well as sanctity (Graham, Nosek & Haidt, 2012; Graham et al., 2011, Graham et al., 2009). The tendency for liberals to adhere to the individualizing cluster in their moral reasoning and regard the remaining dimensions as secondary. In comparison, conservative individuals care more about the dimensions of loyalty, authority and sanctity. However, conservatives do consider the individualizing cluster as well, but in a more balanced manner (Graham et al. 2011; Haidt, 2012; Nilsson et al. 2015; Davies et al. 2014). Empirically, the moralizing process does vary among cultures, but less than between social classes and age. However, there does seem to be a trend for traditional and collectivist societies to be more attuned to the binding, community and group related, moral foundations. In contrast, members of WEIRD societies are more sensitive to the individualistic clusters of fairness, harm and care when moralizing. WEIRD societies also tend to distinguish between harm-inflicting moral violations, and violations of etiquette or social codes of conduct. In these societies the latter is often viewed as less severe (Graham et al. 2011; Haidt et al. 1993; Haidt, 2012).

The research culturally closest to the present study are the studies by Nilsson and Erlandsson (2014) and Kivikangas, Lönnqvist & Ravaja (2017). Nilsson and Erlandsson measured Swedish students by MFQ (N = 540), political identity by self-placement, and *system justification* (e.g. Nilsson & Jost, 2012; Kay & Jost, 2003) in order to explore the structural validity of the MFT as well as its relation to political ideology. The results were consistent with Graham et al. (2011) and indicated the five-factor model to be better than the two-factor model of the MFT. Furthermore, it seems that harm and fairness decrease, and loyalty, authority and sanctity increase as political



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identity moves from left to right (Fig. 2). Also, fairness and authority were the strongest predictors of political identity in this sample. Kivikangas et al. used a representative Finnish sample ( $N = 874$ ). The respondents completed the MFQ and two single-item measures of political self-placement on a left-right and liberal-conservative scale. In this study the left-right dimension corresponded with all foundations except sanctity and conservatism was associated with the binding foundations. The research supports the claim that the two political scales are not comparable in some countries and thus political orientation is better measured multidimensionally.

The largest study on MFT and political orientation to date was undertaken by Haidt, Graham and Joseph (2009). They used the database on YourMorals.org with a large sample ( $N=20962$ ) of US born individuals to identify several MFT clustering models and compared these based on demographical data, Big Five (BF), Schwartz Value Survey (SVS) several moral and ideological measures. The automatic cluster analysis produced a two-cluster model with distinct liberal/conservative profiles. This provided support for the findings in other MFT studies in relation to political identity (e.g. Graham, Haidt & Nosek, 2009).

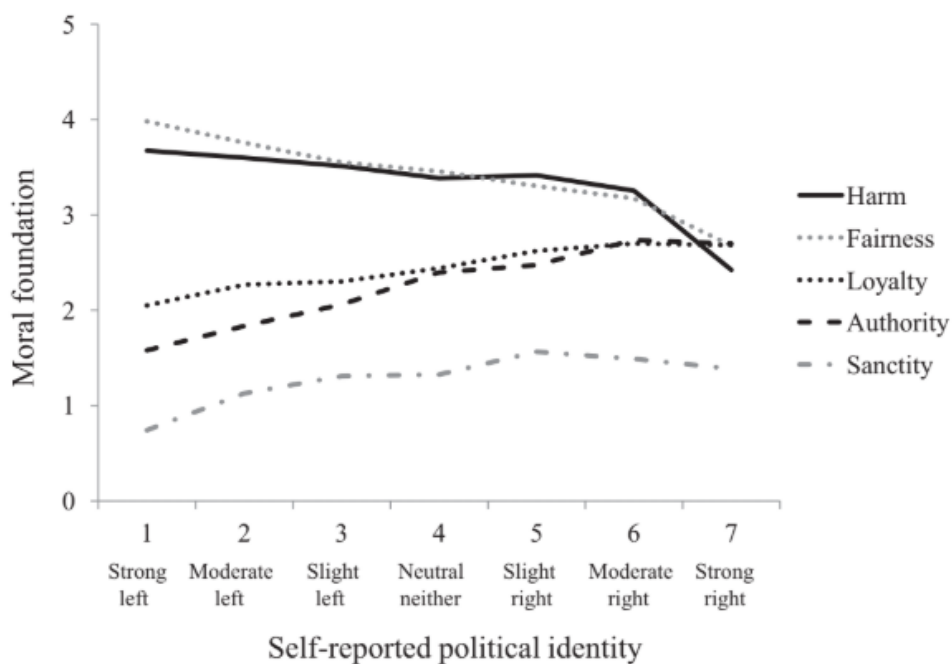


Figure 2. Moral foundations across political identity from left to right in Nilsson & Erlandsson 2014.

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In subsequent analyses both three- and four-cluster models were observed. The three-cluster solution showed a third group whose profile differed from the liberal and conservative groups in the two-cluster solution and the four-cluster solution revealed yet another group, and this solution was seen as the most interesting since it also contained all previous groupings.

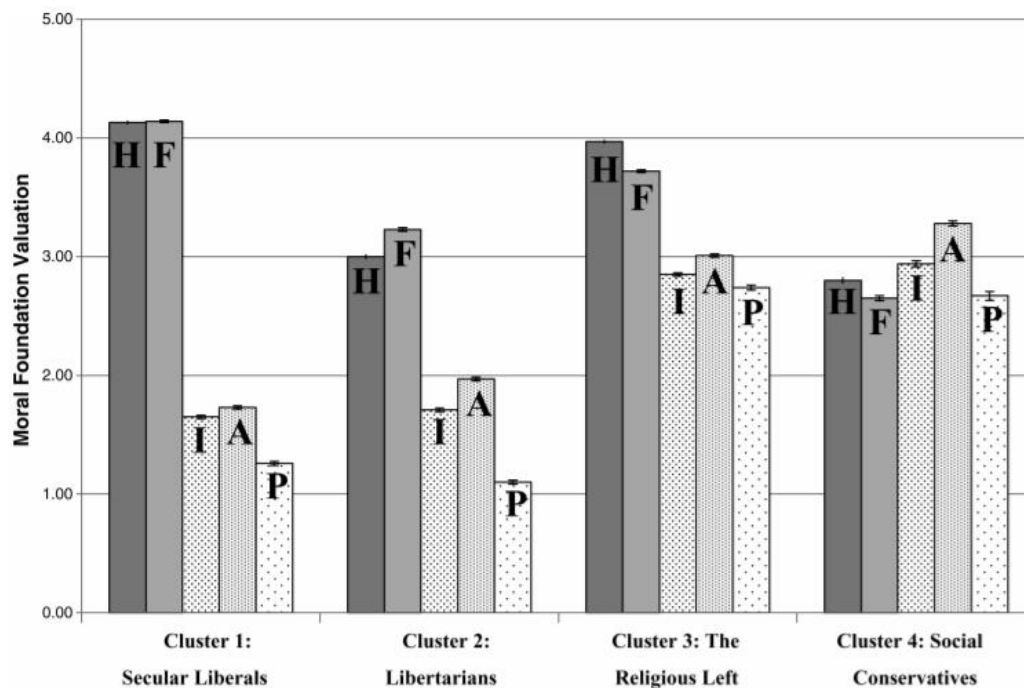


Figure 1. Moral foundation patterns in four clusters. Note. H = Harm; F = Fairness; I = Ingroup; A = Authority; P = Purity. Total sample sizes for each cluster are as follows: 5,946 (Cluster 1), 5,931 (Cluster 2), 6,397 (Cluster 3), 2,688 (Cluster 4). Error bars represent  $\pm 2$  S.E.

Figure 3. MFT clusters and political identity from Haidt et al. 2009.

The groups in the four-cluster model (Fig. 3) corresponded with the self-reported political identity scale (1 being very liberal and 7 most conservative) almost linearly, with the first cluster coming in as very liberal ( $M=1.92$ ), the second cluster as liberal ( $M=2.63$ ), the third cluster as somewhat conservative ( $M=3.31$ ) and the fourth cluster as quite conservative ( $M=4.99$ ). This cluster had the highest average scores in Harm and Fairness, and very low scores in Ingroup Loyalty, Authority and Purity. This cluster scored highest in BF Openness to Experience, and the lowest in Right-Wing Authoritarianism and Social Dominance Orientations. Furthermore, people in this and

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the second cluster were twice as likely to identify as atheist than people in clusters three and four. The fourth cluster was almost the total opposite; very high scores in Ingroup Loyalty, Authority and Purity, but the lowest scores in Harm and Fairness. Low scores in Openness to Experience and the highest scores on Right Wing Authoritarianism, Social Dominance Orientation and Religiosity. The second and third clusters combined aspects from both previous prototypical liberal/conservative clusters but also demonstrated that go beyond and above the left/right perspective. For example, the second cluster had the highest scores on Schwartz's (1990) Hedonism value and was very accepting of issues condemned by the conservative cluster, such as abortion, homosexuality, gambling and tax evasion. Haidt et al. (2009) classified this cluster as libertarian because of its opposition to imposed moral regulations. Both middle clusters were seen as providing support to the notion that political ideology cannot be captured on a left-right dimension. Rather, separate dimensions for social and economic issues seem appropriate (Haidt et al., 2009).

So empirically, the moralizing process does vary among cultures, but less than between social classes and age. However, there does seem to be a trend for traditional and collectivist societies to be more attuned to the binding, community and group related, moral foundations. In contrast, members of WEIRD societies are more sensitive to the individualistic clusters of fairness, harm and care when moralizing. WEIRD societies also tend to distinguish between harm-inflicting moral violations, and violations of etiquette or social codes of conduct. In these societies the latter is often viewed as less severe (Graham et al. 2011; Haidt et al. 1993; Haidt, 2012).

Conclusively, there are empirically distinct MFT profiles that correspond with political self-placement and several psychometric measures of traits and values including the BF and SVS. However, the MFT profiles tend to replicate badly in cross-cultural samples. A two-dimensional bipolar measure for political identity is the most used operationalisation of political ideology and should fit well with use of the MFQ despite of its critiques.

### 4. PURPOSE AND RESEARCH QUESTIONS

My goal is to explore the values of FNDU students through the MFQ instrument and uncover whether the MFT holds even in unexplored populations such as military academy students. As MFT is aptly used to predict political identification by moral profiling, cluster analysis of the MFT data followed by an analysis of variance is a good approach that mimics the Haidt et al. (2009) model, where clusters were first identified using the MFQ and then explored and compared utilising a political self-placement measurement.

The first aim of this study is to gain insight into how military personnel moralise. To do this I will use the MFQ instrument to explore the values of the FNDU students and see how the sample clusters. This will reveal indications of typical MFT profiles among aspiring military officers. The second goal is to see how these cluster profiles lie on the political spectrum. This is achieved by examining two political self-placement instruments and exploring the variations between the clusters.

Since there appears to be no published research on how the MFT and political identity works within military samples, my research questions and hypotheses must rely on the base of research on civilian populations. Hence, my research is perhaps best viewed through a semi-exploratory lens.

#### *Research questions.*

Regarding the twofold goals of this study my research questions are the following:

1. What kinds of MFT profiles can be identified in the military student sample?
2. How do the clusters typically identify on the political spectrum?

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### *Hypotheses.*

Empirical evidence suggests that MFQ results tend to group into four main clusters in WEIRD populations (Haidt et al., 2009). One liberal cluster with high scores in harm and fairness, a second cluster reminiscent of a conservative profile with more evenly distributed scores for all foundations and two smaller clusters, a conservative and a libertarian. The FNDU students certainly fit into the WEIRD category and I think a four-cluster solution is a reasonable expectation for this study: One conservative cluster and a liberal one with two smaller clusters representative of the libertarian as well as a sanctity/conservatism-oriented cluster reflective of the Haidt et al. (2009) clusters. I expect all clusters to place themselves as research would predict: the liberal-type MFT cluster will identify as left-liberal and the conservative-type MFT cluster as right-conservative. The libertarian cluster will place as liberal-right and the sanctity-conservatism-oriented cluster will have a similar political profile as the conservative cluster but to a less prominent degree.

The popular belief is that military individuals are more conservative and authoritarian than the general population. Why then, is it reasonable to expect a near replication of previous, civilian, studies even in a military population? First, Finland is considered one of the most egalitarian and liberal societies in the world. As such, it is fair to assume that this reflects upon the FNDU as well. Corresponding with the first point, Finland employs mandatory military service for all men and regular refresher training for reservists. The service is optional but increasingly popular among women as well. This brings the military closer to the general civil society and I expect this to have an effect of the representativeness and plurality of all Finnish military organisations, including the FNDU. Thus, I do not expect the FNDU sample to vary significantly from the general population on the MFQ or political identification scales.

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Hence, my hypotheses are the following:

1. There will be two main clusters and two smaller clusters: one conservative and a liberal one, and a smaller conservative and a libertarian cluster, which all form according to the MFT.
2. These clusters will affiliate with political self-placement in accordance with the MFT; The clusters with high individualising fundamentals will identify as predominantly left-liberal, and the clusters with higher group binding fundamentals will identify as right-conservative. The libertarian cluster will hold liberal-right values.

## 5. METHOD

This chapter's goal is to present the method and procedure of this study in detail. All instruments and subsequent analyses conducted will be introduced along with the ethical perspective.

### 5.1. Procedure

Data was collected on MFT, demographic and political self-placement variables. The survey can be viewed in detail in Appendix A. After the data collection, it was coded into a database for easier processing. A two-step cluster analysis was conducted, and the best model determined by observing the Bayesian information criteria as well as the theoretical reference frame.

The clusters were named and analysed. Following the analysis, a test of homogeneity of variances was conducted to ensure that the clusters were comparable. An ANOVA was conducted to analyse the association of the clusters and the two political self-placement variables, as this is one of the main applications of the MFT instrument. Any significant differences observed, were analysed via the Tukey HSD post-hoc test, in order to see which groups are significantly different from one another.

### 5.2. Participants and survey

The survey sample (N = 167) consisted of Finnish first year military cadettes from the FNDU. The questionnaire included the standardised 30 item moral foundations questionnaire (MFQ30) which was translated into Finnish. Demographic data was collected through several instruments. The survey included a rudimentary battery for childhood home income, number of children, civil status, age, specific study program, and gender. Before use, the translated questionnaire was piloted on several native Finnish-speakers and iterated upon to minimise any nuance lost in translation. To summarize, this study utilises the political self-placement instrument as well as the MFQ30 and is to be considered person oriented.

As most of the participants in the survey were men (93.4 %) this sample is not representative of any civilian population with regards to gender. However, it is representative of the Finnish Defence Forces (FDF) overall, as women constitute only 6.6 % of the non-commissioned officers and 2,4 % of the officers in all branches combined (FDF, 2017). The consequences that this gender discrepancy may have for my conclusions and further research will be discussed later.

#### 5.2.1. *MFQ30 design and consistency*

All participants completed the MFQ30, which consists of 30 questions measuring the moral foundations (six items for each foundation), and two catch questions designed to remove people not responding seriously. The questionnaire utilises a Likert-type scale from zero to five (0 = disagree, 5 = completely agree), commonly used for psychometric test questionnaires. Each MFT parameter is measured by six questions for each of the foundations. The MFQ30 is further divided into two segments. The first presents questions like “When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? *Whether someone was harmed or not?*” and the second presenting statements such as “Please

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read the following sentences and indicate your agreement or disagreement. *If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.*" This last statement was purposefully changed from the original MFT30 in order to fit the military context better. In the original survey the statement starts with "*If I was a soldier...*" whereas the FNDU survey modified it to "*As a soldier it is my duty...*".

Measures of internal consistency (Cronbach  $\alpha$ ) of the translated MFQ30 instrument six-item subscales used in this study ranged from poor to reasonable (Harm,  $\alpha = .690$ , Fairness,  $\alpha = .570$ , Loyalty,  $\alpha = .595$ , Authority,  $\alpha = .618$ , Sanctity,  $\alpha = .653$ ). The internal consistency of the MFQ30 instrument as a whole was reasonable ( $\alpha = .663$ ). This would indicate is a poorer internal consistency than reported in the original validation study (Graham et al. 2011), which gave an average subscale  $\alpha$  ranging from .65-.84. This is hardly unexpected, since many studies using translated measures have reported poor ( $\alpha < .60$ ) or unacceptable ( $\alpha < .50$ ) levels of internal consistency of their MFQ instruments (Bobbio et al., 2011; Dogruel et al., 2013; Kim et al., 2012; Zhang & Li, 2015).

### *Example items from each foundation.*

The Harm foundation was measured with statements such as "Whether or not someone cared for someone weak or vulnerable" in the first part, and "It can never be right to kill a human being" in the second part.

Fairness was measured with statements such as "Whether or not someone acted unfairly" in the first part, and "When the government makes laws, the number one principle should be ensuring that everyone is treated fairly" in the second part.

Loyalty was measured with statements such as "Whether or not someone did something to betray his or her group" for the first part, and "It is more important to be a team player than to express oneself" in the second part.



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Authority was measured with statements such as “Whether or not an action caused chaos or disorder” for the first part, and “As a soldier, it is my duty to obey my commanding officer’s orders even if I disagree with them” for the second part.

Purity was measured with statements such as “Whether or not someone acted in a way that God would approve of” for the first part, and “I would call some acts wrong on the grounds that they are unnatural” for the second part.

### *5.2.2. Political self-placement*

Political self-identification was measured through two items on a 1-6 Likert-type self-placement scale. The first item concentrated on the participants’ political beliefs on a spectrum from left to right regarding economic issues, e.g. taxation and social welfare. The second item focused on social issues and values on a similar liberal-conservative spectrum, e.g. homosexual marriage and immigration. In both questions lower numbers indicated a more liberal or leftist approach whereas a higher number indicated a more conservative or right-wing approach.

In all its simplicity this instrument is a crude one, and self-placement is a problematic type of operationalisation since it is prone to several types of reporting biases. However, political self-placement is frequently used in both psychometric tests as well as political and societal surveys, making it the standard measurement for political affiliation despite its shortcomings.

### 5.3. Cluster analysis

Cluster analysis is basically pattern recognition and grouping. Within this concept, we measure similarity, form clusters, and decide on the number of clusters that best represent and explain the structure of the sample. However, the cluster concept is not

steadily defined and might vary greatly depending on which clustering algorithm is utilised (Hair et al., 2014; Joseph et al., 2010).

Cluster analysis may use several classification techniques to group subjects based on logical test functions so that subjects in a cluster all share similar characteristics but differs from the other clustered group(s) in the sample. In other words, cluster analysis is an attempt to maximise homogeneity inside the clusters while simultaneously maximising heterogeneity between the clusters. Thus, cluster analysis is a comparison of objects based on the determined variate, not an estimation of the variate itself (Hair et al., 2014; Joseph et al., 2010).

This technique is mainly used for identifying natural groups within the data, analysing groups of similar observations instead of individual observations, and identifying implicit relationships within the data. Sample size itself does not constitute any statistical inference issues for cluster analysis. However, the sample size must naturally be large enough to provide adequate representation of small groups within the population. Otherwise the underlying structure might not be represented properly in the model (Hair et al., 2014).

Combined approach, such as the two-step cluster analysis that is used in this study, uses a quick non-hierarchical algorithm for pre clustering the data and then relies on hierarchical methods for the final cluster solution. The two-step analysis is mainly an exploratory tool to reveal natural groupings within the sample (Hair et al. 2014).

How then, do we determine the adequate number of clusters for the final model? Any hierarchical method will result in an unspecified interval - starting with a one-cluster model and ending with a one-data-point-member-cluster model. As we move from one-member clusters toward the one-cluster, heterogeneity will increase within the clusters. While we aim to get a simple and representative structure, we must simultaneously assure that the groupings remain as homogenous as possible. A disproportionally large increase in heterogeneity when the number of clusters decrease

indicate that dissimilar clusters have been merged, which is something we aim to avoid in order to get an informative model (Hair et al., 2014). In this study, the most explanatory number of clusters will be automatically determined by the SPSS two-step algorithm using the Bayesian Information Criterion and logarithmic likelihood distance measure, and then analysed through the theoretical reference frame.

It is worth noting that cluster analysis is *descriptive, atheoretical, and noninferential* (Hair et al., 2014, p. 419). In other words, clustering does not rely on any statistical basis that enables drawing inferences from any sample to a whole population. As such, it is mainly regarded as an exploratory technique. Cluster analysis will create clusters even in the absence of an existing structural pattern within the sample, and the emergence of clusters within a sample does not validate their existence without a strong conceptual frame of reference.

### 5.4. Analysis of variance and post hoc testing

ANOVA gives a measure of the sample's total variability by the sum of squared differences of the cases from their mean. It is possible to further investigate the total sum of squares by dividing them with the components that are causing the variation. After the components of all specified sources for the variation have been confirmed, the remaining sum of squares is attributed to random variation. Hence, ANOVA is used to determine if there are statistically significant differences between two or more means. This analysis works in the basis of a non-specific null hypothesis. Thus, one may only conclude whether there are differences between the means or not, not necessarily which exact means that differ from one another (Hair et al., 2014, Tukey, 1949; Upton & Cook, 2014).

Thus, post hoc testing becomes necessary. Post hoc tests are used as a second stage to complement the ANOVA. John Tukey developed the Honestly Significantly Different test (HSD) to compare several means pairwise. This test builds on studentised range

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distribution, which tests the difference between the smallest and largest means. This method is like t-distribution but may utilise more than two means for comparison. The HSD-test will give information on which exact means that differ significantly (Tukey, 1949).

### 5.5. Ethics

The main ethical concerns for this study are to follow scientific standards and to abide by the FNDU research permission contract (Appendix B. Contract no. AP22426) that was required to access the sample data.

The standards of anonymity and confidentiality have been considered in order to minimise the risk of harm to any participants. Before the actual survey, a presentation of the study and what the data may be used for - publications, presentations, and conferences - was given to ensure informed consent. After the data encoding all cases were anonymised and any personal information disclosed by the participants was deleted from the digital records. The data is used only and explicitly for this study, and no part of the sample data shall be handed to third parties.

The FNDU has granted rights to use the value survey MFQ sample for this study. However, there are several reservations. Most importantly, the requirements for proper data storage and the right to withdraw the data if any reservations are violated. And of course, proper scientific conduct and high standards of honesty in reporting, careful analysis, methodological transparency, sufficient validation of test results, proper crediting of sources, and genuine collaboration with peers shall be upheld. As the FNDU research- and ethics committee has reviewed and accepted the research plan, the study's premises should all be in proper order.

## 6. RESULTS

An overview of the samples descriptive data and demographics is given in this chapter. Then the results of the clustering process along with the political self-placement ANOVA and post hoc testing are presented.

### 6.1. Descriptive data, demographics, and correlations

The whole survey sample ( $N=167$ ) was relatively young ( $M = 22$ ,  $SD = 1.47$ ) and consisted mainly of men (93.4 %). The questionnaire included political self-placement instruments on a scale from 1-6 with the sample mean positioning as centre-right ( $M = 4.33$ ,  $SD = .91$ ) concerning economical values and centre-liberal ( $M = 3.51$ ,  $SD = 1.21$ ) regarding social values, with some degree of variance.

Pearson product-moment correlations (Tab. 1) were performed to give an overview of the data. Of the individualising foundations, only fairness had a significant negative correlation with the political measures of social conservatism ( $r(165) = -.158$ ,  $p = .042$ ) and right-wing economic policies ( $r(165) = -.258$ ,  $p = <.001$ ). All binding foundations except purity had significant positive correlations with conservatism (Loyalty  $r(165) = .278$ ,  $p = <.000$ , Authority  $r(165) = .392$ ,  $p = <.000$ ) and rightism (Loyalty  $r(165) = .171$ ,  $p = .027$ , Authority  $r(165) = .164$ ,  $p = .034$ ). Furthermore, this sample presents the same tendency for the foundations themselves as previous research, where the individualising and binding foundations correlate negatively with each other but positively within their higher order cluster. The only anomaly being Sanctity, which had high significant correlations with all other foundations.

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	ECONOMIC	SOCIAL	HARM	FAIRNESS	LOYALTY	AUTHORITY	SANCTITY
ECONOMIC	1	.254**	-0.085	-.158*	.171*	.164*	-0.065
SOCIAL	.254**	1	-0.048	-.258**	.278**	.392**	.227**
HARM	-0.085	-0.048	1	.556**	.193*	0.012	.456**
FAIRNESS	-.158*	-.258**	.556**	1	0.017	-0.072	.282**
LOYALTY	.171*	.278**	.193*	0.017	1	.565**	.359**
AUTHORITY	.164*	.392**	0.012	-0.072	.565**	1	.403**
SANCTITY	-0.065	.227**	.456**	.282**	.359**	.403**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

*Table 1. Correlations of MFT and political values.*

### 6.2. Clustering logic

First, the items concerning each moral foundation were coded into standardised mean variables. These were then used in a two-step cluster analysis in SPSS based on the logarithmic-likelihood distance measure. The clusters were first automatically determined with 15 as maximum number of clusters. Both the Schwarz's Bayesian Information Criterion (BIC) and the Akaike Information Criterion (AIC) were utilised for cross reference and the elbow argument was used to then deduct the best model.

This automatic clustering model leaned towards a four-cluster model, with no outlier cluster and a fair fit considering cluster silhouette and separation. Both the BIC and AIC values and changes consistently indicated toward this four-cluster model. However, the changes were not that significant and a two or three-cluster model might have been considered almost equally good. Two more analyses were conducted with the specified number two and three clusters respectively, with the conclusion that the four-cluster model appears to be the most informative and certainly the best with regard for cluster homogeneity and inter cluster heterogeneity.

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This model yielded clusters of increasing size (C1 12.6 %, C2 29.9 %, C3 22.8 %, C4 34.7 %) with a fair cluster quality by silhouette measure of cohesion and separation. Purity was the most important predictor of cluster membership, with Fairness and Harm as equally good secondary predictors.

### 6.3. Cluster characteristics

The sample means were relatively low for Harm ( $M = 2.89$ ,  $SD = .75$ ), moderate for Fairness ( $M = 3.34$ ,  $SD = .57$ ), high in Loyalty ( $M = 3.70$ ,  $SD = .56$ ) and Authority ( $M = 3.40$ ,  $SD = .57$ ), and comparatively low for Purity ( $M = 2.50$ ,  $SD = .68$ ). All clusters had high scores in Loyalty and Authority (Tab. 2). The main predictors for cluster membership were Sanctity, Fairness and Harm.

	HARM		FAIRNESS		LOYALTY		AUTHORITY		SANCTITY	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
C1	3.17	0.52	3.74	0.41	3.52	0.4	3.03	0.38	2.43	0.62
C2	2.55	0.5	2.92	0.36	3.78	0.53	3.64	0.42	2.54	0.39
C3	3.49	0.51	3.61	0.35	4.14	0.38	3.89	0.38	3.15	0.38
C4	1.87	0.69	2.79	0.58	3.18	0.67	2.91	0.6	1.4	0.32
Sample	2.89	0.75	3.34	0.57	3.7	0.56	3.39	0.57	2.5	0.68

Table 2. Clusters, MFT Means and Standard Variation of the sample.

The first cluster ( $n = 58$ ) had relatively high scores in Harm ( $M = 3.17$ ,  $SD = .52$ ), and Fairness ( $M = 3.74$ ,  $SD = .41$ ) compared to the sample means. However, Loyalty ( $M = 3.52$ ,  $SD = .40$ ) scores were moderate but lower than the sample mean. Authority ( $M = 3.03$ ,  $SD = .38$ ) and Sanctity ( $M = 2.43$ ,  $SD = .62$ ) were also lower than the sample mean. As this cluster was comparatively sensitive to the Harm and Fairness foundations but also scored moderately in Loyalty and on the political spectrum this cluster had the most leftist but still quite moderate economic value mean ( $M = 4.17$ ,

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$SD = 1.03$ ) and very liberal social value means ( $M = 3.07$ ,  $SD = 1.27$ ) it was aptly named the Loyal-Liberal cluster (Fig 4 & 5).

The second cluster's ( $n = 50$ ) general nominator was Authority ( $M = 3.64$ ,  $SD = .42$ ). Harm ( $M = 2.55$ ,  $SD = .50$ ) and Fairness ( $M = 2.92$ ,  $SD = 0.36$ ) were significantly lower than the sample mean. On the political spectrum this cluster was the most right-wing economically ( $M = 4.46$ ,  $SD = .81$ ) and conservative socially ( $M = 3.96$ ,  $SD = 1.05$ ) This cluster was named the Authoritative-Conservative cluster (Fig 4 & 5).

The third cluster ( $n = 38$ ) scored high in all foundations, with the exception for Fairness which was still higher than the sample mean. This cluster had the significantly higher Sanctity ( $M = 3.15$ ,  $SD = .38$ ) scores than the other clusters was most reminiscent of Haidt et al. (2009) Religious-Left cluster on the MFT scales. However, this clusters political profile was relatively rightist economically ( $M = 4.38$ ,  $SD = .79$ ) and conservative socially ( $M = 3.84$ ,  $SD = 1.09$ ), but less so than the Authoritative-Conservative cluster. Henceforth called the Loyal-Conservative cluster. (Fig 4 & 5).

The fourth cluster ( $n = 21$ ) was the smallest cluster and scored significantly lower in all foundations compared to the other clusters. Furthermore, it was particularly unsensitive to the Harm ( $M = 1.87$ ,  $SD = .69$ ) and Sanctity ( $M = 1.40$ ,  $SD = .38$ ) foundations. On the political scales this cluster was economically moderately rightist ( $M = 4.38$ ,  $SD = .97$ ) but the most socially liberal ( $M = 3.05$ ,  $SD = 1.07$ ). As this cluster is quite unsensitive to all foundations, but very uncondemning and liberal socially it fitted the characteristics of the libertarian political profile found by Haidt et al. (2009) and was christened the Libertarian cluster (Fig 4 & 5).



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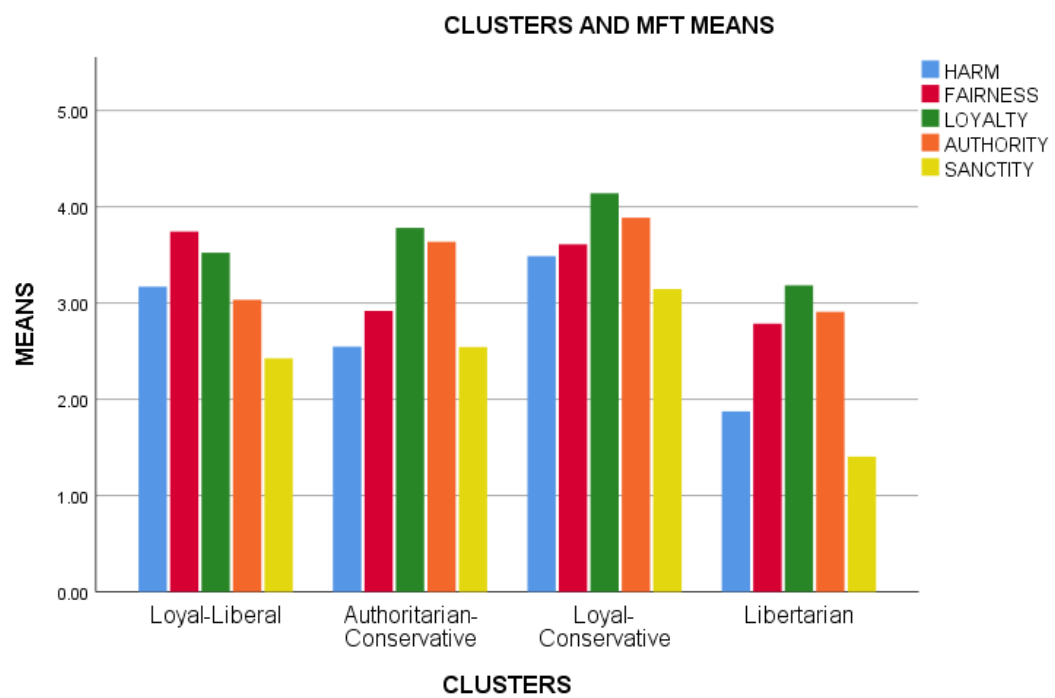


Figure 4. Moral foundations means of each cluster.

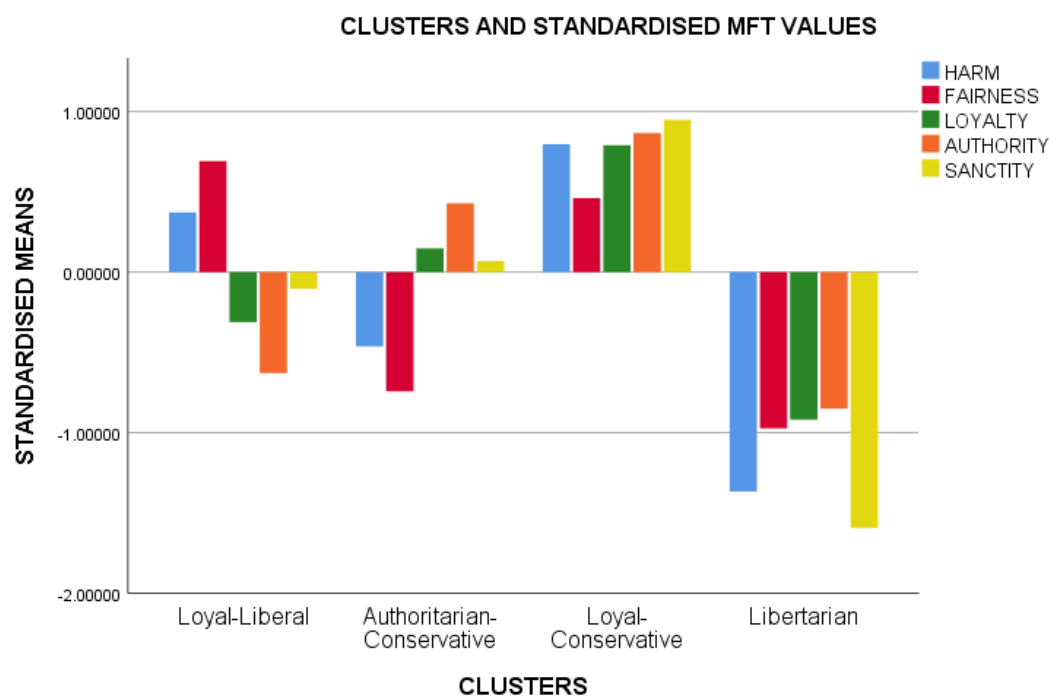


Figure 5. Moral foundations. Standardised by sample means.

### 6.4. Analysis of variance

A one-way between subjects' ANOVA was conducted to compare the association of political self-placement and cluster inhesion. There was an insignificant association between economical values and cluster membership ( $F(3,162) = 0.975, p = 0.406$ ). However, there was a small significant association between social values and cluster membership ( $F(3,162) = 7.622, p < .000$ ) (Fig. 6; Tab. 3).

Post-hoc comparisons on social values using the Tukey HSD test indicated that the means of the Loyal-Liberal cluster ( $M = 3.07, SD = 1.27$ ) and the Libertarian ( $M = 3.05, SD = 1.07$ ) cluster were significantly different from the Authoritarian-Conservative cluster ( $M = 3.96, SD = 1.05$ ) and the Loyal-Conservative cluster ( $M = 3.84, SD = 1.09$ ). However, the Authoritarian-Conservative cluster and the Loyal-Conservative cluster did not significantly differ on social values amongst themselves, as did not the Loyal-Liberal cluster and the Libertarian cluster. Conclusively, the results suggest that there is a significant observable difference in social values dependant on the MFT profile, and that the data may be divided into two main groups based on this value measurement (Fig. 6; Tab. 3).

## MORAL FOUNDATIONS AND POLITICAL IDENTITY

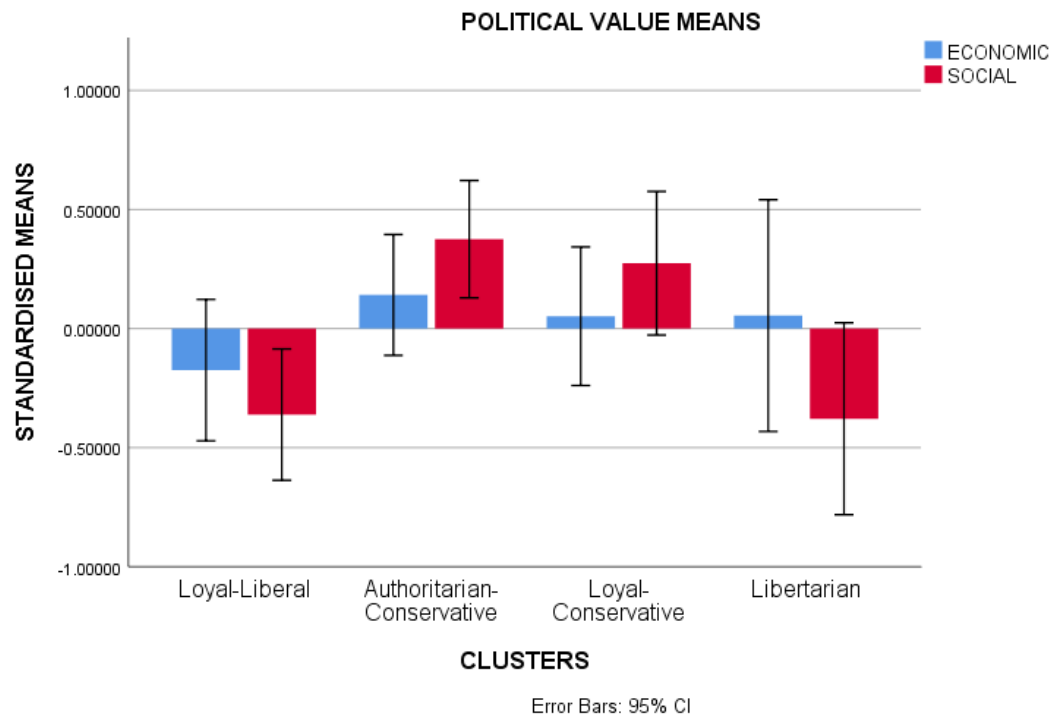


Figure 6. Political self-placement of the clusters.

	Sample		Loyal-Liberal		Authoritarian-Conservative		Loyal-Conservative		Libertarian				
	Mean	SD	M	SD	M	SD	M	SD	M	SD	F(3,162)	p	$\eta^2$
Social	3.51	1.21	3.07a	1.27	3.96b	1.05	3.84b	1.09	3.05a	1.07	7.622	<.000	0.124
Economic	4.33	0.91	4.17	1.03	4.46	0.81	4.38	0.79	4.38	0.97	0.975	0.406	0.018

Table 3. ANOVA results on political orientation. A profile mean is significantly different from another mean within the same row if they have different superscripts. A mean without a superscript is not significantly different from any other mean.

## 7. DISCUSSION

This chapter's purpose is to summarise the results, discuss the relevance and limitations of this study, and point toward future research possibilities.

### 7.1. Limitations and future research

Even though this study reached its goals in examining the functionality of the MFT in a military population, it naturally has its limitations.

First, the MFQ was translated from English to Finnish, and even though the questionnaire was piloted before there are certain nuances that are hard to get right. This inevitably reflects upon the validity and reliability of the results and more studies are needed to confirm the reliability of the translated instrument. Especially as there is evidence to suggest that translated MFQ measures do have replicational problems, which were reflected in the internal consistency of the translated MFQ30 version utilised in this study as well (Bobbio et al., 2011; Dogruel et al., 2013; Kim et al., 2012; Zhang & Li, 2015). Generally, a Cronbach's  $\alpha$  of  $> .70$  is considered the cut-off point as a measure of internal consistency, but a  $\alpha$  value of  $> .60$  is sometimes used in exploratory studies within the social sciences (Hair et al., 2010). In this study the values ranged from a poor  $\alpha = .57$  to a reasonable  $\alpha = .69$ .

The two-dimensional political self-placement instrument used in this study had one measurement for social and another for economic values. This way of measuring political identity is considered standard. However, we cannot know how correspondent symbolic and operational ideology are in this sample and must presume that this to be a measurement of symbolic ideology (Feldman & Johnston, 2013; 20 Jost, 2006; Jost et al., 2009).

Methodically, it should be noted that there are many varying clustering algorithms and methods. Since they depend on their own assumptions and mathematical models clustering is to be considered an approximation of reality at best (Hair et al., 2014).

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However, this study encompasses a representative portion of FNDU students, and this provides descriptive perspective of the observed values and how they group in the sample even if the differences between the groups are fairly small.

Theoretically, the MFT has been criticised for ignoring other possible candidate foundations and basing the base of the theory on assumptions rather than empiricism and previously established theory (e.g. Suhler & Churchurchland, 2011). The original validation study yielded less than optimal results even though the moral foundations clearly correlate with distinct characteristics and values the theory is considered more a work in progress than a full description of human morality (Graham et al. 2011). Thus, we cannot exclude the possibility of latent classes of common values that are simply not measured by this instrument or reflected in a way that is hard to recognise. Here further studies comparing the MFT to other standardised value-measures would be welcome to establish a more exhaustive and explanatory model.

As discussed earlier, the sample had a skewed gender representation. Even though it is representative of the gender distribution observed in the Finnish Defence Forces it is not representative of the general population (FDF, 2017). This begs the question whether this study has observed the MFT and political values of military student men only or military students in general regardless of gender? This discrepancy calls for studies with a larger sample with a more even gender representation.

Furthermore, the military organisation is a large one with several individual facets. This study examined a sample representative of FNDU students, and it is quite possible that the results do not extend further within the organisation - to veteran officers or career non-commissioned officers for example. Thus, research into the other service branches and their different levels would prove interesting to see whether these results replicate.

### 7.2. Conclusions and relevance

This is the first study to examine the MFTs functionality in a military sample by combining the MFQ with political a self-placement measurement. Thus, this study may be considered pioneering research into the MFT within the military context. The results provide an indication of how the MFT works in this military population and gives insight into what military cadette students at the FNDU consider important when moralising and how this is reflected into the political sphere. Furthermore, contemporary MFT research has encountered replication problems, especially in cross-cultural populations. By utilising the same methodology of combining cluster-analysis with political self-placement instruments that previous studies have used, this study also contributes to the base of data needed to explore why replication of the original MFT findings might be so difficult.

Loyalty and Authority where consistently the most important foundations across the sample while Sanctity, Harm, and Fairness scored lower. The results counter the popular belief that military individuals would be conservative and authoritarian through and through, as the results point toward a degree moral diversity among the sample. This diversity of values extends to the political spectrum as well, with the whole sample being centre-liberal on social values and centre-right on economic values with some amount of spread across the field. As Ingroup-Loyalty and Authority were the foundations with least variation and consistently high scores across the sample I suggest that this might be the main unifying quality among the military populous but would be considered an anomaly in any WEIRD population with regards to the variance of the political self-placement scores.

Comparing the correlations revealed that Authority and Loyalty were positively associated, and Fairness was negatively associated with right-conservatism. The individualising foundations correlated positively amongst themselves as did the binding foundations, apart from Sanctity, which correlated positively with all foundations. This replicates previous findings, apart from the Sanctity foundation (e.g. Graham et al., 2011; Haidt et al., 2012; Haidt et al., 2009; Nilsson & Erlandsson, 2015).

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When clustering the MFQ material, a four-cluster model appeared to give the best explanatory value. However, it is worth to mention that the two- and three-cluster models were almost equally good and could be worth exploring later. The four clusters did not clearly associate with any previous studies results, but they had many characteristics reminiscent of Haidt et al. (2009) four MFT clusters. The tendency for the individualising foundations to decrease while the binding foundations increase, observed in Nilsson and Erlandsson (2015), was not as clearly observed in this sample. On the contrary, in this sample it seems that the relative relationship between the foundations in each cluster is more informative than the sum-total of each separate foundation when relating to political identity.

The Loyal-Liberal cluster had the largest discrepancy between the binding- and individualising foundations. It had the most economically leftist and socially liberal means, which would be typical for a left-liberal profile. The Loyal-Conservative cluster had high but relatively even scores in all foundations and placed centre-conservative on the political scales. The remaining two clusters were most interesting. The Authoritarian-Conservative clusters MFT profile was like an inverted Loyal-Liberal profile and this cluster was the most right-conservative economically and socially. The Libertarian cluster scored low in all foundations and had the most liberal views socially but still held right oriented economical values.

These findings partially support my first hypothesis of four clusters with a liberal, libertarian, conservative and semi-conservative clusters formed according to the MFT. However, the liberal and libertarian clusters displayed higher Loyalty and Authority scores than the expected, and the smaller conservative cluster had surprisingly high Authority. This reflects the main anomaly of this sample – MFT profiles with high Authority and Loyalty that still identify as socially liberal. This is contrary to what both the Haidt et al. (2009) and the Nilsson and Erlandsson (2015) models would predict, as these results display MFT profiles that should identify as quite conservative but hold liberal social values. This could probably be partially attributed to the military context, where these values are observably held in high regard regardless of political identification or other personal values.

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My second hypothesis is also partially supported by the results, even though the political differences between the clusters remained small. The liberal and libertarian clusters were significantly more socially liberal than both conservative clusters.

Some might consider the observed value pluralism unexpected from a niche population such as the FNDU, where the university's selection process would be expected to align the students. However, I believe that the mandatory military service system along with the relatively egalitarian opportunities for university education in Finland might contribute to the versatility in these values. Nonetheless, the absolute MFT value discrepancies between the clusters were relatively small compared to previous studies and the differences on the economic value spectrum were insignificant whereas the differences in social values were significant but small.

Conclusively, the scientific relevance of this study lies in piloting the research of the MFT into the military context by analysing the clusters that formed in the sample. The societal relevance of these results lies in questioning the stereotypical expectations that society might have on military cadettes as this study shows that military cadettes are equipped with a diverse set of values, even though they conform on the levels that ought to be important in the military context – Loyalty and Authority. At the same time, this is a weird observation in any WEIRD population. However, more research applied on broader military samples is warranted to confirm the results of this study, both nationally, by gender and cross-culturally. Nonetheless, this study gives a fair overview of the FNDU cadettes moral foundations.



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### Appendix A. The translated survey.

#### ARVOKYSELY 2019 MFT30 & PVQ



Päivämäärä: \_\_\_\_\_

Nimi: \_\_\_\_\_

Ikä: \_\_\_\_

Sukupuoli: Mies [ ] Nainen [ ] Muu [ ]

Kadettikurssi: \_\_\_\_\_

Siviilisäätty: \_\_\_\_\_

Lasten määrä: \_\_\_\_

Lapsuuskodin vuositulot:

0 – 20 000	20 000 – 30 000	30 000 – 50 000	50 000 – 70 000	70 000 – 100 000	100 000 →

Arvioi omaa poliittista suuntautumistasi koskien taloudellisia kysymyksiä (esim. toimeentulotuet, verokysymykset, valtion menot) ja sijoita itsesi seuraavalle asteikolle vasemmisto – oikeisto:

Vasemmisto	1	2	3	4	5	6	Oikeisto
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Arvioi oma poliittista suuntautumistasi koskien sosiaalisia arvokysymyksiä (esim. maahanmuutto, sukupuolineutraali avioliitto, abortti) ja sijoita itsesi seuraavalle asteikolle liberaali – konservatiivi:

Liberaali	1	2	3	4	5	6	Konservatiivi
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# MORAL FOUNDATIONS AND POLITICAL IDENTITY

Osa 1. Kun päätät, onko jokin oikein tai väärin, kuinka tärkeitä seuraavat asiat ovat sinulle?  
Ympyröi vastausvaihtoehdot.

Ei lainkaan tärkeää 0	Ei kovin tärkeää 1	Hieman tärkeää 2	Jonkin verran tärkeää 3	Hyvin tärkeää 4	Erittäin tärkeää 5	
1. Loukataanko jonkun tunteita vai ei.	0	1	2	3	4	5
2. Kohdellaanko ihmisiä eriarvoisina vai ei.	0	1	2	3	4	5
3. Käyttäytyykö joku isänmaallisesti vai ei.	0	1	2	3	4	5
4. Osoittiko joku kunnioituksen puutetta auktoriteetille vai ei.	0	1	2	3	4	5
5. Rikkoiko joku pyhyyden ja soveliaisuuden normeja vai ei.	0	1	2	3	4	5
6. Mikäli joku on hyvä matematiikassa.	0	1	2	3	4	5
7. Pitääkö joku huolta heikoista ja haavoittuvaisista vai ei.	0	1	2	3	4	5
8. Käyttäytyykö joku epäreilusti vai ei.	0	1	2	3	4	5
9. Pettääkö joku ryhmänsä vai ei.	0	1	2	3	4	5
10. Noudattaako joku yhteiskunnan perinteitä vai ei.	0	1	2	3	4	5
11. Tekeekö joku jotain inhottavaa/vastenmielistä vai ei.	0	1	2	3	4	5
12. Käyttäytyykö joku julmasti muita kohtaan vai ei.	0	1	2	3	4	5
13. Evätäänkö jonkun oikeudet vai ei.	0	1	2	3	4	5
14. Osoittaako joku lojaalisuuden puutetta vai ei.	0	1	2	3	4	5
15. Aiheuttaako jonkun toiminta sekasortoa vai ei.	0	1	2	3	4	5
16. Toimiiko joku Jumalan hyväksymällä tavalla vai ei.	0	1	2	3	4	5

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Osa 2. Lue seuraavat virkkeet ja merkitse mielipiteesi ympyröimällä vastausvaihtoehto.

Täysin eri mieltä 0	Osittain eri mieltä 1	Hieman eri mieltä 2	Hieman samaa mieltä 3	Osittain samaa mieltä 4	Täysin samaa mieltä 5	
17. Myötätunto kärsiville on kaikista tärkein hyve.	0	1	2	3	4	5
18. Kun hallitus säätää lakeja, tärkein periaate on varmistaa, että kaikkia kohdellaan oikeudenmukaisesti.	0	1	2	3	4	5
19. Olen ylpeä maamme historiasta.	0	1	2	3	4	5
20. Kaikkien lasten tulisi oppia kunnioittamaan auktoriteetteja.	0	1	2	3	4	5
21. Ihmisten ei tulisi tehdä inhottavia/vastenmielisiä asioita, vaikka teko itsessään ei vahingoittaisi ketään.	0	1	2	3	4	5
22. On parempi tehdä hyvää kuin paha.	0	1	2	3	4	5
23. Puolustuskyvyttömän eläimen satuttaminen on yksi pahimmista asioista, joita ihminen voi tehdä.	0	1	2	3	4	5
24. Oikeudenmukaisuus on toimivan yhteiskunnan tärkein edellytys.	0	1	2	3	4	5
25. Ihmisten tulee olla lojaaleja perheenjäsenilleen, vaikka nämä olisivat tehneet jotain väärin.	0	1	2	3	4	5
26. Miehillä ja naisilla on erilaiset roolit ja tehtävät yhteiskunnassa.	0	1	2	3	4	5
27. Jotkin teot ovat väärin, sillä ne ovat epäluonnollisia.	0	1	2	3	4	5
28. Ihmisten tappaminen ei ikinä ole oikeutettua.	0	1	2	3	4	5
29. Minusta on moraalisesti väärin, että rikkaiden lapset perivät paljon rahaa, kun taas köyhien lapset eivät peri mitään.	0	1	2	3	4	5
30. On tärkeämpää olla "joukkuepelaaja" kuin päästä toteuttamaan itseään.	0	1	2	3	4	5
31. Sotilaana velvollisuuteni on noudattaa esimieheni käskyjä, vaikka olisin niistä eri mieltä.	0	1	2	3	4	5
32. Siveys on tärkeä ja arvokas hyve.	0	1	2	3	4	5

Appendix B.  
The FNDU research permission contract.



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15.01.2020

AQ497  
4544/12.04.01/2019

Simon Granroth

1. PVOHJEK- PE TUTKIMUSLUVAT PUOLUSTUSVOIMOISSA (HM751)
2. TUTKIMUSLUPAHAKEMUS (AP22426, 12.12.2019)
3. Sähköposti: apulaissotilasprofessori Pulkka- MPKK tutkimusala 9.12.2019
4. Keskustelu Höysniemi-Granroth 12.1.2020

#### TUTKIMUSLUVAN MYÖNTÄMINEN (GRANROTH)

##### 1. Esitys tutkimusluvan myöntämiseksi

Valtiotieteiden kandidaatti Simon Granroth hakee tutkimuslupaa (AP22426), jolla haetaan lupaa käyttää Maanpuolustuskorkeakoululla kerättyä aineistoa pro gradu-tutkielmassa. Granroth opiskelee Helsingin yliopistossa sosiaalipsykologia pääaineenaan ja hän toimi aiemmin Johtamisen ja sotilaspedagogiikan laitoksella korkeakouluharjoittelijana. Granrothin pro gradu-tutkielman työnimi on *"Moral foundations and political ideology among finnish military cadettes"* ja siinä tutkitaan kadettien arvokyselyn pohjalta heidän moraaliprofiileja ja sitä, eroavatko eri profiilit poliittisilla ulottuvuuksilla.

Maanpuolustuskorkeakoulua koskevissa tutkimuslupa-asioissa ratkaisijana toimii Maanpuolustuskorkeakoulun rehtori ensimmäisen viitteen mukaisesti.

Granroth hakee tutkimuslupaa, jonka perusteella hän voisi käyttää korkeakouluharjoittelunsa aikana kerättyä aineistoa kadeteista. Kyseinen aineisto kerättiin apulaissotilasprofessori Pulkan johdolla ensimmäisen vuosikurssin kadeteilta ja siinä kerättiin demograafista dataa, jonka lisäksi kyselyssä oli mukana myös moraaliluvutusteoriaan perustuva MFT30-mittari. Kyseistä aineistoa kerättyäessä on ollut maininta kyselyn informaatio-osassa, että aineistoa voidaan käyttää opinnäytteisiin, tieteellisiin konferensseihin ja tieteellisiin julkaisuihin. Kyselyaineiston omistaa Maanpuolustuskorkeakoulu.

Granrothin pro gradu tultaisiin julkaisemaan julkisena ja tutkielman arvioidaan valmistuvan vuoden 2020 aikana. Työn ohjaajina toimivat tohtorikoulutettava, pol.mag. Rasmus Mannerström, sosiaalipsykologian professori Jan-Erik Lönnqvist ja sotilaspedagogiikan apulaissotilasprofessori Antti-Tuomas Pulkka.

Maanpuolustuskorkeakoulun tutkimusala on käsitellyt valtiotieteiden kandidaatti Simon Granrothin tutkimuslupahakemuksen ja päättänyt esittää rehtorille tutkimusluvan myöntämistä.

Maanpuolustuskorkeakoulu

Puh. 0299 800  
Faksi 0299 530110

Y-tunnus 0952029-9  
www.puolustusvoimat.fi

PL 7  
00861 HELSINKI

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## 2. Päätös lupaehtoiheen

Tällä päätöksellä Maanpuolustuskorkeakoulu myöntää valtiotieteiden kandidaatti Simon Granrothille tutkimuslupan alla luetelluin ehdoin.

1. Lupa on määräaikainen, ollen voimassa 31.12.2020 saakka. Lupa koskee vain hakemuksessa mainittua opinnäytteen tekijää, Simon Granrothia. Lupaa ei voida siirtää kolmansille osapuolille;
2. Lupa koskee ainoastaan hakemuksessa ja tutkimussuunnitelmassa kuvattua tutkimusta;
3. Lupa koskee vain Maanpuolustuskorkeakoululla kerätyn aineiston käyttöä hakijan pro gradu-tutkielmassa, eikä sitä voi käyttää muissa tutkimuksissa ilman erillistä tutkimuslupaa;
4. Kyseisen aineiston omistaa Maanpuolustuskorkeakoulu, ei aineisto ole edelleen luovutettavissa;
5. Tutkimusjoukosta ei kerätä mitään muuta aineistoa hakemuksessa kuvatun kyselyaineiston lisäksi;
6. Hakija vastaa tietojen käsittelemisestä henkilötietolain ja Puolustusvoimien ohjeistuksen mukaisesti;
7. Tutkimus ja aineiston analysointi tulee toteuttaa hyvien tutkimuseettisten periaatteiden mukaisesti. Tutkimusaineistona kertyvää tietomassaa voivat tarkastella tarvittaessa hakijan lisäksi opinnäytteen ohjaajat, Kadettikoulun määrittämät yhteyshenkilöt, sekä Maanpuolustuskorkeakoulun tutkimusjohtaja professori Hannu H. Kari tai hänen sijaisensa. Tutkimusaineistona kertyvää tietomassaa tulee säilyttää ja hävittää asianmukaisesti;
8. Yksittäisiä henkilöitä ei saa olla tunnistettavasti esillä tutkimusraportissa tai aineistossa;
9. Tutkimuksessa käytettävästä aineistosta ei saa syntyä henkilötietorekisteriä;
10. Ohjaajana toimiva apulaissotilasprofessori Antti-Tuomas Pulkka tai hänen määräämänsä henkilö tarkistaa tutkimuksen ja tutkimusaineiston ennen julkaisua, jonka vuoksi hakija on velvollinen toimittamaan opinnäytteen ennen sen julkaisua mainitulle taholle;
11. Tutkimuksessa ei saa käyttää tietoturvaluokiteltua aineistoa, ellei siihen haeta erikseen lupaa;

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12. Näiden lupaehtojen rikkominen johtaa tutkimusluvan ja aineistonkäyttöoikeuden peruuttamiseen;
13. Hakija sopii yhdessä apulaissotilasprofessori Antti-Tuomas Pulkan kanssa siitä, miten opiskelijoita tiedotetaan tutkimuksesta ja kyselystä, mikäli siihen katsotaan olevan tarvetta.
14. Maanpuolustuskorkeakoulun rehtorilla on oikeus keskeyttää Granrothin tutkimuksen toteuttaminen, mikäli tutkimuksen katsotaan loukkaavan maanpuolustuksen etua, tai häiritsevän tutkimukseen osallistuvaa henkilöstöä tai opiskelijoita.

### 3. Muutoksenhaku ja valitusosoitus

Tähän päätökseen saa hakea muutosta valittamalla Helsingin hallinto-oikeuteen asiakirjaan liitetyn valitusosoituksen mukaisesti

### 4. Lisätietoja

Lisätietoja koskien tutkimuslupaa antaa Maanpuolustuskorkeakoulun tutkimusala:

Maanpuolustuskorkeakoulu  
Tutkimusala, Matti Höysniemi  
PL7, 00861 Helsinki  
puh. 0299 530 728

Rehtori  
Kenraalimajuri

Jari Kallio

tutkimusjohtaja  
professori

Hannu Kari

Tämä asiakirja on sähköisesti allekirjoitettu.

LIITTEET

liite 1: valitusosoitus

JAKELU

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TIEDOKSI

MPKK OAO postin käsittelijät  
MPKK KADK postin käsittelijät  
Antti-Tuomas Pulkka, Maanpuolustuskorkeakoulu Johtamisen ja soti-  
laspedagogiikan laitos  
Rasmus Mannerström  
Jan-Erik Lönnqvist